

**Before the**  
**FEDERAL COMMUNICATIONS COMMISSION**  
**Washington, DC. 20554**

<b>In the Matter of</b>	)	
	)	
<b>Amendment of Part 15 regarding</b>	)	<b>ET Docket No. 04-37</b>
<b>new requirements and</b>	)	
<b>measurement guidelines for Access</b>	)	
<b>Broadband over Power Line</b>	)	
<b>Systems</b>	)	

**To: The Federal Communications Commission**

**Reply Comments from Scott A. Ginsburg**  
**Amateur Radio Operator K1OA**

The following are formal reply comments from Scott A. Ginsburg, an Amateur Radio operator (Extra Class licensee – call sign K1OA).

**Response to Comments from Progress Energy**

From pg. 8 of Progress’ comments: *“With regard to the Hams, it appears that they consider any interference to be harmful.”*

This is perhaps the most pivotal issue in the entire BPL debate. According to the International Telecommunications Union (ITU) Radio Regulations, which all member states, including the U.S., must abide by, the definition of harmful interference is defined in Article I, Terms and Definitions:

“Interference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs, or repeatedly interrupts a radiocommunication service operating in accordance with these Regulations.”

Amateur Radio operators routinely communicate with other stations that have very weak signals. Any interference, even the weakest of unwanted signals, has the potential to seriously degrade or obstruct the ability of Amateur operators to receive those

signals. The presence of such interference, coupled with the potential for it to mask out signals from other licensed services, should be enough to require a BPL operator to implement mitigation procedures.

### **Response to Comments from Ameren Energy Communications**

From pg. 6 of Ameren's comments: *"Therefore, we believe that the ability of Access BPL equipment to notch out suspect frequencies and to selectively shut down particular units is sufficient to prevent interference to these services."*

By offering that mitigation techniques may prevent interference from occurring to existing radio services, Ameren is as much admitting that interference *is* likely to be caused. Furthermore, it is not enough to notch out "suspect frequencies". The capability must exist in BPL equipment to avoid transmissions in all of the Amateur Radio bands, which are ranges of frequencies. Sufficient suppression and the use of guard bands around the edges of the Amateur bands must be required to ensure that no energy is transmitted inside those frequency bands whatsoever.

From pg. 6 of Ameren's comments: *"Various operators of BPL test sites have reported, by way of the BPL NOI record, that no interference from their BPL operations has been reported. AEC's tests corroborate this experience. Thus further measures to address an unlikely problem seem superfluous."*

Clearly, Ameren is not aware of the field measurements gathered by the American Radio Relay League documenting interference to the Amateur Radio Bands. Ameren has also chosen to ignore the work by Progress Energy in North Carolina to mitigate interference reported by Amateur Radio operators in that state.

From pg. 6 of Ameren's comments: *"AEC does not expect to operate BPL systems in the AM broadcast band (from 535 to 1705 kHz)."*

One would have to question why Ameren is not utilizing those frequencies. If they contend that interference to existing radio services does not occur, then why not utilize the 1.170 MHz of spectrum offered by this frequency band?

From pg. 10 of Ameren's comments: *"AEC supports the Verification procedure for Access BPL under the equipment authorization program. AEC also agrees that the authorization procedure for BPL should be the same for all unintentional radiators, including the traditional types of carrier current systems. AEC believes that a higher degree of oversight is not necessary, especially in light of the adaptive interference mitigation techniques proposed by the Commission."*

In effect, what Ameren is saying is that it would rather wait for interference to be reported than make the effort to reduce the likelihood before deployment. This is exactly why a higher degree of oversight is necessary.

#### **Response to Comments from American Public Power Association**

From pg. 5 of American's comments: *"During that trial period, the City of Manassas – following existing Part 15 emission limits, as proposed in this NPRM – did not receive a single report of harmful interference."*

Given the limited nature of the actual trial, this is hardly enough evidence that interference is not caused by BPL systems. As previously stated, the American Radio Relay League has documented that interference is created by some BPL systems operating in the HF spectrum. While no reports may have been filed in Manassas, surely as the trial expands and the numbers of BPL homes passed increases, the likelihood of an interference complaint by an Amateur Radio operator increases.

#### **Response to Comments from Corridor Systems**

From pg. 1 of Corridor's comments: *"Corridor Systems has invented, developed and demonstrated a broadband power line system that is very different in nature from previous technologies"*

Corridor's product operates above 2 GHz, a portion of the electromagnetic spectrum that is both superior from a noise generation and bandwidth standpoint. The

Commission should seriously consider requiring all BPL equipment to operate above 2 GHz to remove any chance of interference to licensed services in the HF and VHF spectrum.

### **Response to Comments from Maximum Service Television**

From pg. 5 of MSTV's comments: *"In this proceeding, that broad goal can best be effectuated by limiting the operation of Access BPL services to frequencies below 50 MHz."*

Should the Commission continue to allow BPL operation in the HF/VHF frequency spectrum once the NPRM regulations are issued, if the portion from 50-80 MHz is excluded this would put severe pressure on the remaining frequency bands, with the Amateur Service to suffer the most from interference.

This request furthers the argument that BPL should only be allowed to exist in the spectrum above 2 GHz.

### **Response to Comments from Power Line Communications Association**

From pg. 3 of PLCA's comments: *"In addition to the interference-prevention requirements of Part 15, the Commission is proposing in the NPRM to require Access BPL equipment to employ adaptive interference mitigation techniques, including power reduction, frequency modification and even shut-down features. This, too, is far more than is required of cable modems and DSL modems, and this requirement, in conjunction with other Part 15 requirements, ought to be more than enough to prevent harmful interference."*

It is not reasonable to compare interference-prevention requirements to either DSL or cable modem type services. Neither cable TV nor DSL technologies have the same potential to cause interference as BPL does given the nature of their shielded, closed delivery systems.

From pg. 4 of PLCA's comments: *"Experience gained by electric utilities who are operating Access BPL systems under experimental licenses has shown that instances of harmful interference are rare. There would seem to be, therefore, no demonstrated need to place such extraordinary and costly additional obligations on Access BPL systems."*

Given that far less than 1% of U.S. households currently have BPL systems passing through their neighborhoods, it is disingenuous of PLCA to assume that interference reports, either by Amateur Radio operators, or other users/consumers of the HF spectrum, will be rare. They have clearly ignored the recent interference mitigation activities carried out by certain utilities currently operating BPL trial systems. Now is the time to put protective regulations in place before BPL deployments get too far along and interference reports deluge the Commission on a daily basis.

### **Response to Comments from Current Technologies**

From pg. 2 of Current's comments: *"Current Technologies looks forward to the swift adoption of rules that promote BPL while balancing the legitimate requirements of licensed users."*

There is no balancing act required under current Federal and ITU regulations. It is clear that Federally licensed radio services must be protected under any circumstances.

From pg. 3 of Current's comments: *"Because these measures represent a new concept that requires new technology, BPL providers should have 36 months after the rules become effective to purchase new devices that can be remotely configured or disabled."*

From pg. 19 of Current's comments: *"To avoid substituting regulatory fiat for the forces of the marketplace, the Commission should allow BPL providers a minimum period after the effective date of the rules of 36 months before they must purchase BPL devices that can be remotely configured or disabled. Devices purchased before that date should be grandfathered."*

This is an unreasonable request. BPL operators must not be given any time in which to replace equipment that is causing interference to licensed radio services, and instead should be required to shut that equipment down upon the receipt of interference reports. BPL service providers and equipment manufacturers have undertaken such ventures with the complete understanding of Part 15 regulations which state that it is illegal to interfere with licensed radio operations. They have chosen to take the risks

involved in investing capital in unproven technologies, and should not place the burden of unwise decisions on those parties negatively affected by interference from BPL. In effect they are penalizing such users in their attempt to circumvent Part 15 non-interference regulations.

### **Response to Comments from Main.net**

From pg. 6 of Main.net's comments: "*Main.net does not operate nor does it intend to operate Access BPL in the AM Broadcast band (from 535 to 1705 kHz).*"

Why is Main.net stating this fact? If they are not concerned with generating interference from their BPL equipment, then *why not* operate in the AM Broadcast band? Is this an acknowledgement that their systems do cause interference, and that it is OK to sacrifice the HF users, namely Amateur Radio operators, Shortwave listeners, and Citizens Band operators?

### **Conclusion**

To the Commission: Thank you for the opportunity to present Reply Comments on this very important matter. I again applaud your interest in upholding the non-interference rules defined in Part 15, and I respectfully request that you abide by the ITU definition of harmful interference that clearly prohibits *any* unwanted interference from being generated on the Amateur Radio bands.

**Respectfully Submitted,**

**Scott Ginsburg,  
Member, Massachusetts Emergency Management Association Radio Group**

**May 27, 2004**